



Horizon develops new revolutionary hydrogen fuel generator technology

Novel cartridge delivers hydrogen energy when needed at much lower cost than disposable batteries

Singapore, November 2, 2010 – [Horizon Fuel Cell Technologies Pte Ltd](#) announces today the successful development of a new proprietary hydrogen fuel generator technology targeting portable, military and aerospace markets. Pushing the limits further on price and performance, the innovation gives fuel cells an edge over today's battery-based power systems.

Following three years of research on hydrogen fuel generator systems, Horizon's scientific team came up with a cartridge which produces hydrogen when required, using a solid chemical system. The fuel cartridge does not require external hydration, operates at -10°C to 50°C, offers unlimited shelf-life before and after activation, and can be designed for both low cost and high performance market requirements.

“Horizon's new development fills the energy gap which exists in today's battery market, where power delivery is cheap but energy storage is expensive, especially during black-outs or off-grid situations,” says George Gu, Horizon Fuel Cell's CEO. “For applications requiring less than 1kW of power, this is the only energy storage technology that simultaneously resolves long term storage, ease of use, safety and low cost.”

With the ability to retail as low as \$9.99, the consumer version of Horizon's new cartridge is designed to deliver up to 150Wh of energy - or the equivalent of one hundred disposable AA-size batteries each running at 1W of power. By reducing fuel cartridge costs by 80% over previously announced products, this new technology is expected to greatly increase the commercial potential for portable fuel cell products targeting off-grid energy supplies.

Additional innovations based on the new technology include the possibility to further increase the fuel energy density to more than 1kWh per kg for weight-sensitive solutions such as the [AEROPAK](#), a compact fuel cell power system designed to increase the flight endurance of unmanned aircraft.

About Horizon Fuel Cell Technologies

Horizon Fuel Cell Technologies is a world leader in the development and manufacturing of advanced fuel cell power systems and hydrogen storage technologies enabling Consumer Electronics, Portable, Aerospace, and Electric Vehicle markets. Based in Singapore, Horizon is currently the world's largest manufacturer and marketer of micro-fuel cell products, and offers the world's widest range of fuel cell integrated products and solutions. For more information visit: www.horizonfuelcell.com and www.hes.sg or contact taras@horizonfuelcell.com.

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